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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,501	09/13/2004	Akihiro Kuroda	016912-0209	6483
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FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER SOROUSH, LAYLA	
			ART UNIT 1617	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/507,501	<b>Applicant(s)</b> KURODA, AKIHIRO	
	<b>Examiner</b> Layla Soroush	<b>Art Unit</b> 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 11-15, and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

The response filed June 4, 2007 presents remarks and arguments submitted to the office action mailed May 2, 2007 is acknowledged.

Applicant's remarks and arguments over the restriction requirement mailed May 2, 2007 have been considered and are persuasive. The requirement for a species election is herewith withdrawn.

Applicant's remarks and arguments over the 35 U.S.C. 103 (a) rejection of Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1) in view of Yonekura et al. (US Pat. No. 4,892,726) and Wada et al. (US Pat No. 6,534,044) of 1, 3-10, 12, 14-15, and 16 have been considered. In view of the amendments made to the claims the rejection of record is herewith withdrawn.

Applicant's remarks and arguments over the 35 U.S.C. 103 (a) rejection of Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1) as applied to claims 1, 3-10, 12, 14-15, and 16 as above and further in view of Fukuchi (English translation, JP 01211518 A) of claim 2 have been considered. In view of the amendments made to the claims the rejection of record is herewith withdrawn.

In view of applicants amendments to the claims the following new rejections are made:

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-10, 12, 14-15, and 16 are rejected under 35 U.S.C. 103(a) as being obvious over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented) in view of Yonekura et al. (US Pat. No. 4,892,726– previously presented), Wada et al. (US Pat No. 6,534,044– previously presented) and Roidl (EP 0523 911 A2).

Ichinohe et al. teaches in Example 11, a dimethylpolysiloxane in 24 weight % at 6 mm<sup>2</sup>/sec at 25 C (non-volatile oil agents of instant claims 1a and 5), a trimethylsiloxysilicate in 1 weight % (oil soluble silicone), 1,3-butylene glycol in 2.0 weight of the composition % (a volatile solvent and a lower alcohol of instant claims 1d and 9; a polyhydric alcohol), a polyether modified silicon (recited in claim 3), and purified water (recited in claim 4). Pigments are also taught as components in the composition (recited in claim 1e in part).

Further, Ichinohe et al. teaches examples of organic powders used in the composition include polymethylsilsesquioxane (water-repellent powders, of instant claims 1b and 6). The amount of the said component in the cosmetic composition ranges from 0.1- 99-weight % to total cosmetic material (page 4, left column, lines 1-15 from top and lines 52-63 from top). Additionally, examples of

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inorganic powders such as titanium oxide, zinc oxide, and cerium oxide are taught as components of the cosmetic composition. The inorganic and organic powders are formed into complexes or treated with general oils, silicone oils, etc. (page 4, left column lines 1-10 from bottom of page)). Further, Ichinohe et al. teaches that any powder can be mixed into the composition regardless of shape, size, and structure as long as they have hitherto been used in conventional cosmetic materials. The amount of the said components in the cosmetic composition ranges from 0.1- 99 weight % to total cosmetic material (page 3, right column, last 3 paragraphs in entirety and page 4, left column, last paragraph in entirety) (water-repellent surface treated pigment, of instant claims 1e (in part) and 10).

The reference teaches the use of polymethylsilsesquioxane as a component and fluorine-modified silicones, for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluorodecaline, perfluorooctaine and the like in the cosmetic composition, the reference does not selectively use polymethylsilsesquioxane and a perfluoroalkyl group-containing polyalkylsiloxysilicate as a component of the composition of example 11.

Yonekura et al. teaches the use of polymethylsilsesquioxane powders as a component of makeup or cosmetic compositions. Additionally the reference teaches the polymethylsilsesquioxane powders and other cosmetic powdery raw material in cosmetic binder oils. Cosmetic powder raw material include pigments such as zinc, silica, and titanium. Yonekura et al. teaches that the

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composition may include water, surface active agents, perfume, thickeners, and antiseptics.

Additionally, Roidl teaches instead of a silicone emulsion the cosmetic composition of the invention utilized a fluorosilicone fluid which is substantive to the skin. The preferred fluorosilicone fluid any polyfluoroalkylmethylsiloxane, and most preferred is polymethyl-3,3,3-trifluoropropylsiloxane (Claims 1 and 2 column 8). The reference meets the limitation "a perfluoroalkyl group-containing polyalkylsiloxysilicate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the silicon resin polymethylsilsesquioxane into the cosmetic composition because Ichinohe et al. teaches the use of polymethylsilsesquioxane in the cosmetic and Yonekura et al. teaches the use of polymethylsilsesquioxane in a cosmetic. The motivation to incorporate the silicon resin polymethylsilsesquioxane in the cosmetic composition is because both references teach the polymethylsilsesquioxane in a cosmetic composition and more specifically, because Yonekura et al. teaches that the polymethylsilsesquioxane powders have "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10). Therefore, a skilled artisan would have reasonable expectation of successfully producing a similar composition with "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a

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moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute a silicone emulsion with the polyfluoroalkylmethyilsiloxane, and most preferably the polymethyl-3,3,3-trifluoroprpylsiloxane into the cosmetic composition because Ichinohe et al. teaches the use of fluorine-modified silicones for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluorodecaline, perfluorooctaine and the like in the cosmetic and Roidl teaches the use of the polyfluoroalkylmethyilsiloxane, and most preferably the polymethyl-3,3,3-trifluoroprpylsiloxane in a cosmetic. The motivation to incorporate the the polyfluoroalkylmethyilsiloxane, and most preferably the polymethyl-3,3,3-trifluoroprpylsiloxane in the cosmetic composition is because both references teach the fluorine-modified silicone in a cosmetic composition and more specifically, because Roidl teaches that the polyfluoroalkylmethyilsiloxane, and most preferably the polymethyl-3,3,3-trifluoroprpylsiloxane have been employed instead of silicone emulsions because they eliminate the tendency of skin irritation and flourosilicones have the advantage of functioning as a moisturizer and form films on the skin which act as a barrier against transepidermal water loss, with the result that the skin tends to be maintained in a softened condition (column 1 lines 30-42). Therefore, a skilled artisan would have reasonable expectation of successfully producing a similar composition with the advantage of

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functioning as a moisturizer and form films on the skin which act as a barrier against transepidermal water loss, with the result that the skin tends to be maintained in a softened condition (column 1 lines 30-42).

Although, both references do teach the use of pigments in the cosmetic compositions, neither specifically teach the use of surface treated pigments.

Wada et al. teaches a cosmetic material comprising silica coated metal oxide particle further surface treated with a hydrophobizing agent. The metal oxide particles include titanium oxide, zinc oxide, cerium oxide, zirconium oxide, and iron oxide. The surface coated metal oxide particles have a primary particle size of 5-120 nm. The metal oxide particles coated with silica (column 3 lines 39-47) are further coated with a hydrophobizing agent (column 49, claim 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the surface-hydrophobicized silica-coated metal oxide particle into the cosmetic composition because Ichinohe et al. teaches the use of metal oxides in the cosmetic. The motivation to incorporate the surface-hydrophobicized silica-coated metal oxide particle in the cosmetic composition is because Wada et al. teaches the surface-hydrophobicized silica-coated metal oxide particle have (1) excellent properties such as suppression of photocatalytic activity (2) "an excellent feel during use," (3) "improvement in the particle fineness and dispersion properties," "(4) low phototoxicity" (5) excellent storage stability (6) satisfactory surface properties (moistness, smoothness) when added to cosmetics and (7) high contouring properties (column 1 lines 30-36, column 2 lines 40-45, 63-68, and column 9 lines 20-25). Therefore, a skilled artisan would



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have reasonable expectation of successfully producing a similar composition with (1) excellent properties such as suppression of photocatalytic activity (2) "an excellent feel during use," (3) "improvement in the particle fineness and dispersion properties," "low phototoxicity" (4) excellent storage stability and (5) high contouring properties.

Claims 7 and 12 are product by process claims. It is well settled in patent law that product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP § 2123. The court in In re Thorpe held, "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the method of making the composition as claimed does not render structural limitations to the claimed composition. Thus, the processes are not given patentable weight. In claim 7, the formulation of the water-repellent resin powder "in a form of being kneaded with an oil agent, finely crushed by a crusher, or dispersed in water" is not given patentable weight. Also, in claim 12 the formulation "in a mechanically ground form in advance or at the time of production of the cosmetic product" is not given weight.

Ichinohe et al. do not expressively teach the term "water-runability," as recited in claim 14. However, the reference teaches that the composition has a "strong repellency to sweat and water." This is viewed equivalent or similar to the recited property of the cosmetic composition, as recited in claim 14.

Also, the method of imparting water-runability on the skin or hair, as recited in claim 16-20, is viewed obvious because the reference teaches the moisture resistant property and its use on the skin or hair (see page 2, left column, last paragraph in entirety). In the examiners view, the "water-runability" property of the claimed cosmetic composition and its use are equivalent to that of the reference composition. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use the cosmetic composition taught in the prior art with the expectation of successfully producing a similar cosmetic composition with the resulting water-runability and usability properties.

Ichinohe et al. does not specifically teach the coated portion having "three or more of protruding portions having a height of 0.2 um or more per 10 um-length," as recited in claim 15. However, Ichinohe et al. teaches the composition as claimed and therefore the properties of such a claimed composition are viewed obvious. The cosmetic composition requires the same components and the physical properties of the cosmetic composition will therefore be identical. A physical property is inseparable from its composition and because prior art teaches the cosmetic composition, then the properties are also taught by the

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prior art (In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) See MPEP 2112.01).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Wada et al. (US Pat No. 6,534,044– previously presented) and Roidl (EP 0523 911 A2) as applied to claims 1, 3-10, 14-15, and 16 as above and further in view of Fukuchi (English translation, JP 01211518 A).

Ichinohe et al. does not teach the use of a highly polymerized silicone but does teach the use of a one-end hydrogensiloxane (see page 6 right column text and structural formula) as a component in the cosmetic composition.

Fukuchi teaches the use of a polysilicone of the general Formula I in a hair cosmetic composition. Formula I comprises R1 representing a methyl group or phenyl group and R2 represents a methyl group or hydroxyl group (n represents integer of 3,000-20,000) (see page 1, right paragraph, structural formula I). The reference teaches that the ingredients provide “luster and silkiness onto the hair,” “excellent conditioning effects,” and sustains these effects over “relatively long periods” (see English translation page 2, bullet 3 lines 1-4).

Both Ichinohe et al. and Fukuchi teach compositions directed to hair compositions. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the composition of Ichinohe et al. by adding to the composition the polysilicone of Formula I in Fukuchi. The modification would have been motivated by the teaching in Fukuchi that the

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polysilicone of Formula I will provide a sustained luster, silkiness, and excellent conditioning effects on the hair. The skilled artisan would have had a reasonable expectation of successfully producing a stable and effective hair cosmetic composition with good moisture resistancy and conditioning effects, because both Ichinohe et al. and Fukuchi teach similar formulations (e.g., hair, creams, emulsions comprising volatile oils, etc.).

Claims 11 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Wada et al. (US Pat No. 6,534,044– previously presented) and Roidl (EP 0523 911 A2) as applied to claims 1, 3-10, 14 -15 and 16 as above, and further in view of Hayashi et al. (English translation, JP 2000327948A).

Ichinohe et al. does not teach the water-repellent surface treated pigment coated with silica, alumina, or zirconia, and also does not teach the water-repellent surface treated pigment further subjected to water repellent surface treatment.

However, Hayashi et al. does teach the use of a metal compound powder having a metal compound particle on the surface of the metallic oxide or hydroxide particle in a cosmetic composition (see English translation [0002]). Further, Hayashi et al. teaches the powder coated with organosilane (see page 4/55, heading [Problem to Be Solved], lines 1-13)). Also, the composition is taught to have “outstanding hydrophobic property” (see [0001]).

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It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the Ichinohe composition by incorporating the water repellent surface treated pigment component as motivated by Hayashi et al., because the latter teaches that the coated metal compounds have good hydrophobic properties and are used in cosmetics. Therefore, the skilled artisan would have had a reasonable expectation that the composition would yield a strong water repellency property.

### ***Response to Arguments***

Applicant's arguments filed February 6, 2007 have been fully considered.

The Wada et al reference was in fact granted a patent on March 13, 2003. Additionally, the reference cited is relied upon due to the 371 (c)(1)(2),(4) date of July 11, 2001 which is prior to the applicants claimed priority date.

Applicants arguments against the Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1) in view of Yonekura et al. (US Pat. No. 4,892,726) and Wada et al. (US Pat No. 6,534,044) are drawn to newly presented limitations. These limitations are addressed in the new rejections above.

Furthermore, Applicant argues the amounts specified by the Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1) and Yonekura et al. (US Pat. No. 4,892,726) are too broad.

Although the Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1) and Yonekura et al. references do not specifically teach the claimed amount of ingredients in the cosmetic, the overall disclosure in Ichinohe

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et al. WO 02/03928 (translation: US Publication no. 20030082218A1) and Yonekura et al. would have suggested to the artisan of ordinary skill that the form of the composition and combination of ingredients could have been routinely optimized, depending on the desired properties of the final cosmetic product. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the dose range of the compounds by routine experimentation (see 2144.05 11). The motivation to optimize the amounts of the final formulation is because one would have had a reasonable expectation of success in achieving the most desirable outcome.

Applicant's argument over claim 2 rejection depends on the validity of the previous arguments which were not found persuasive.

Applicant's argument over claims 11 and 13 rejections depends on the validity of the previous arguments which were not found persuasive.

The arguments are not persuasive and the rejection is made FINAL.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

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period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### *Conclusion*

No Claims are allowed.

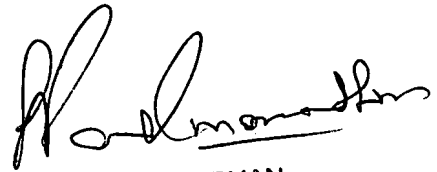
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Layla Soroush whose telephone number is (571)272-5008. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

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direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'S. Padmanabhan', written in a cursive style.

**SREENI PADMANABHAN  
SUPERVISORY PATENT EXAMINER**